12" Planer/Jointer
Model: 25-200

RIKON POWER TOOLS

Owner's Manual

Record the serial number and date of purchase in your manual for future reference.

Serial number: _____

Date of purchase: _____

For more information:

www.rikontools.com or info@rikontools.com

For Parts or Questions:

techsupport@rikontools.com or 877-884-5167

Part # 25-200M1

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1. General Information

1.1 FOREWORD

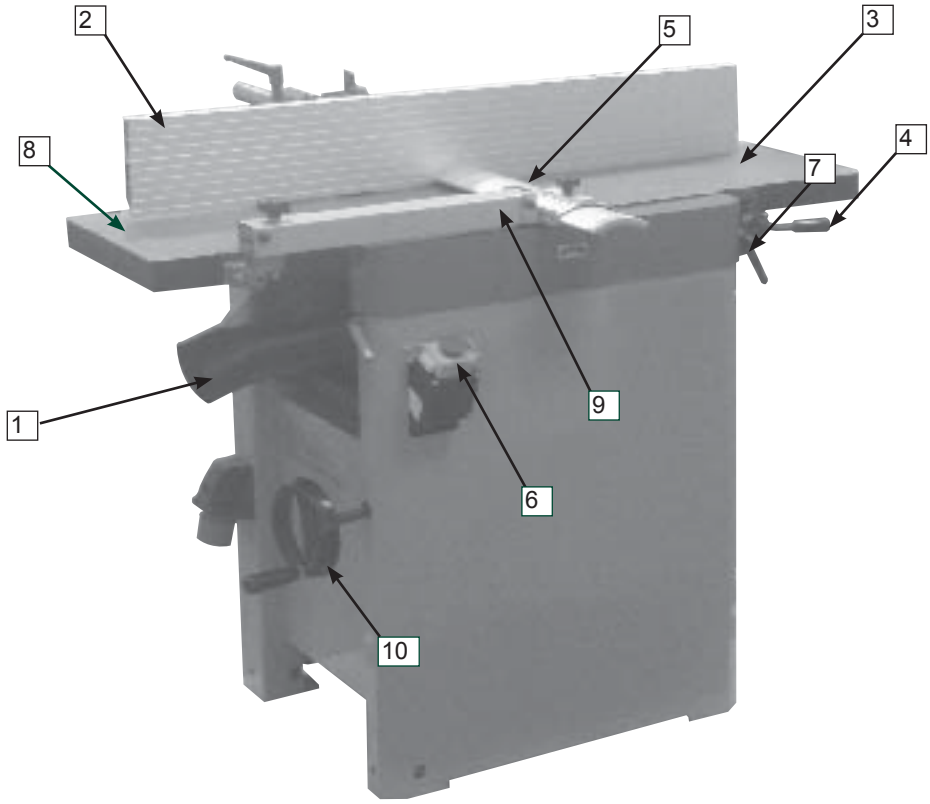
This manual must be read and understood before operating the machine. This will provide a better working knowledge of the machine, for increased safety and to obtain the best results.

2. Machine Description

2.1 MACHINE IDENTIFICATION

There is a identification plate attached to the rear of the machine, containing machine data and serial number.

2.2 GETTING TO KNOW YOUR PLANER/JOINTER



1 Dust chute
2 Jointer fence
3 Infeed table
4 Height setting of infeed table
5 Cutterblock
6 On/off switch
7 Locking level
8 Outfeed table
9 Cutterhead guard
10 Height setting of the planer bed

2.3 TECHNICAL SPECIFICATION

SPECIFICATION	25-200
Feed speed sf/min	23
Cutterhead speed rpm	5300
Cutterhead diameter	2.75"
Max planer capacity	12" x 8"
Max planing width	12.20"
Max depth of cut jointer	1/8"
Max depth of cut planer	1/8"
Knives pcs	3
Fence tilting degree	0-45
Motor power output	3HP
Net Weight	386lbs

2.4 RECOMMENDED PROTECTIVE CLOTHING

- Non-slip footwear is recommended.
- Do not wear loose clothing, neckties or jewellery; they can be caught in moving parts.
- Roll up long sleeves above the elbow.
- Wear protective hair covering to contain long hair.

2.5 NOISE EMISSION

The measurements of noise, in the working position and during operation, were carried out under the standard ISO 7960 Annex B and C:

Instantaneous acoustic pressure:

Sound power level(no load)	<98dB(A)
Sound power level(load)	<107dB(A)
Sound Pressure level(no load)	<89dB(A)
Sound Pressure level(load)	<98dB(A)

Constant K=4 dB measured in accordance with EN ISO 3746:1995

The figures quoted are emission levels and are not necessarily safe working levels. Whilst there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual level of exposure of the workforce include the characteristics of the work room and the other sources of noise etc. i.e. the number of machines and other adjacent processes. Also the permissible exposure level can vary from country to country. This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.

2.6 PRESCRIBED USE OF THE MACHINE

This machine is intended for edge jointimg and thickness planing of solid woods. The permissible workpiece dimensions must be observed (see Technical Specification).
Any other use is not as specified. Unspecified use, modification of the machine or use of parts not tested and approved by the equipment manufacturer can cause unforeseen damage.

2.7 HAZARDS

ATTENTION Planing and jointing still present risks that cannot be eliminated by the manufacturer. Therefore the user must be aware that wood working machines are dangerous if not used with care and all safety precautions adhered to.

2.8 SAFETY INSTRUCTIONS FOR PLANER/JOINTERS

A planer/jointer is a tool which can, due to operator carelessness, cause serious personal injury. It is therefore strongly recommended you read and observe:

· these instructions, particularly the special safety information in the respective chapters;
· the relevant guidelines or regulations for the prevention of accidents pertaining to the use of planer/jointers, where applicable.

Keep all documents, supplied with the machine, for future reference.
The planer/jointer shall only be started and operated by persons familiar with planer/jointers and who are at any time aware of the dangers associated with the operation of such tool. Persons under 18 years of age shall use this planer/thicknesser only under the supervision of an instructor in the course of their vocational training.

The following residual risks do principally exist with planer/jointers and can not, even by employing safety devices, completely eliminated:

- Hazard generated by environmental conditions:
do not operate the planer/jointer in rain or damp environment. Ensure sufficient lighting. Do not operate the planer/jointer near inflammable liquids or gases.
- Hazard to other persons in the work area:
Keep bystanders, particularly children, out of the danger zone.
- Risk of injury by machine faults:
check the planer/jointer for damage before any use. Do not operate the machine with a damaged part. Replace blunt cutter knives at once. Risk of injury by kickback if a blunt knife gets caught in the workpiece's surface.
- Risk of injury by an unstable stand of the planer/jointer:
when working long stock use suitable supports on both sides of the machine. Avoid adverse body positions. Ensure firm footing, and keep your balance at all times.
- Risk of injury by foreign objects in the machine:
prior to any starting of the machine ensure that there are no objects (e.g. tools) in the machine.
- Risk of injury by workpiece kickback (workpiece is caught by the rotating cutterhead and thrown back against the operator):
operate machine only with a fully functional anti-kickback lock. Always use sharp cutter knives. If in doubt check workpiece for inclusion of foreign objects (e.g. nails, screws, lose knots).
- Risk of injury by touching the rotating cutterhead:
always keep your hands well clear of the cutterhead. Switch machine off and plug out if it is not used.
- Danger! Drawing-in/trapping hazard!
Take care that no parts of the body or clothing can get caught and drawn in by the rotating cutterblock (do not wear neck ties and garments with wide sleeves; contain long hair with a hairnet).
- Risk of injury by cuts with cutterblock at standstill: Wear gloves when changing cutter knives.
- Risk of injury by inhaling wood dust: dust of certain timber species (e.g. oak, beech, ash) can cause cancer when inhaled. Use a suitable dust collector:
Risk of injury by inadequate personal protection: when planing, wear:
- dust respirator;
- hearing protection;
- safety goggles.

California Propsition 65 Warning

WARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.Your risk from exposure to these chemicals varies, depending on how often you do this type of work. To reduce your exposure, work in a well-ventilated area and with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

For more detailed information about California Propostion 65 log onto rikontools.com.

3. Installation

3.1. LIFTING AND UNLOADING

The machine can be transported by two means:
1. With a forklift truck. To do so, the machine is secured on a pallet with four hex bolts.
2. With help. Here, the machine is carried by means of carrying straps or two battens (A, Fig.1) placed underneath the planer bed.

CAUTION
Do not move the machine by the infeed and outfeed tables, these are not designed to withstand the tensile load by the machine weight.

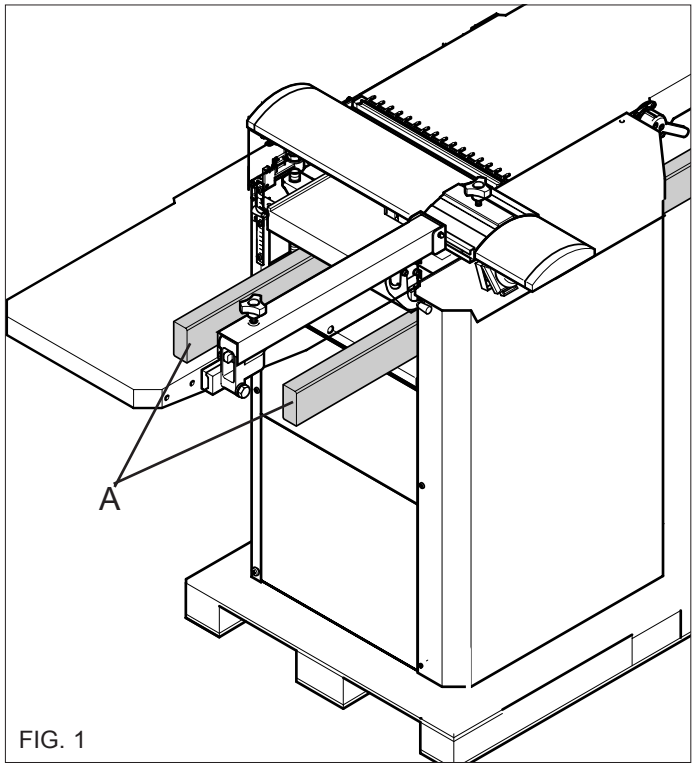


FIG. 1

3.2 POSITION OF THE MACHINE

CAUTION
It is prohibited to install the machine in explosive environments. Ensure that the floor area around the machine is level, well maintained and free from loose material e.g. chips;

1. Remove four mounting bolts from the machine base.
2. Lift machine off the pallet and set down on the floor.
3. Fix the machine to the floor. Fix the machine feet and fix on ground by means of expansion bolts (not supplied).

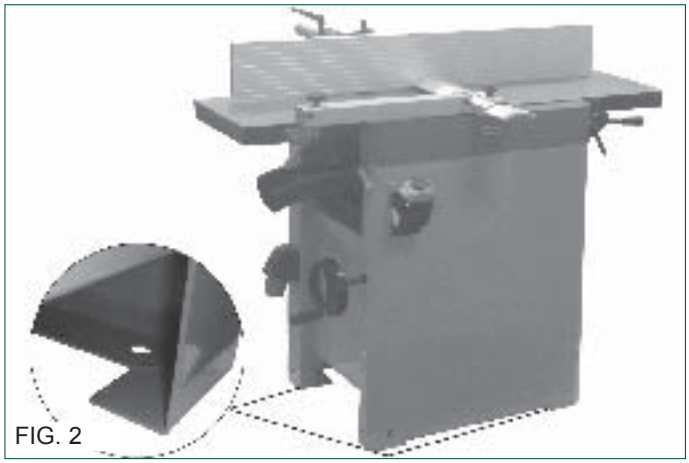


FIG. 2

3.3 IDENTIFYING SHIPPING BOXES

BEFORE ASSEMBLY
It is advisable that before unpacking to have plenty of paper towels or cloths available to clean off the rust preservative.

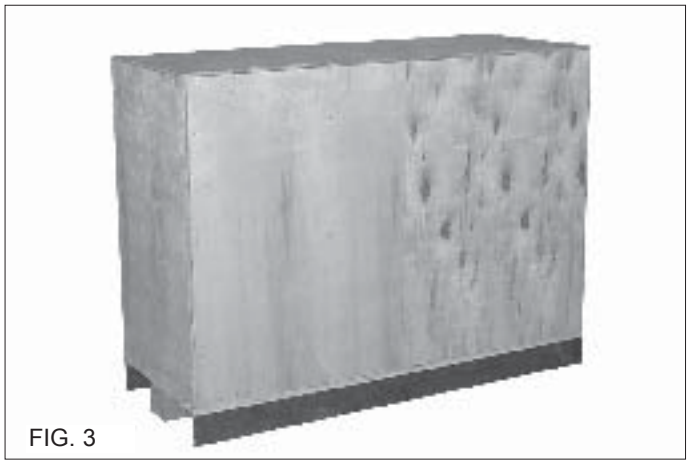


FIG. 3

3.4. INSTALLATIONS OF LOOSE PARTS

3.4.1 FENCE INSTALLATION

- To packaging, the fence seat (A, Fig. 4) is installed incorrectly before shipment. Before installing the fence, taking off both of the hex bolts (B, Fig. 4) and turn the fence seat 180 degrees.

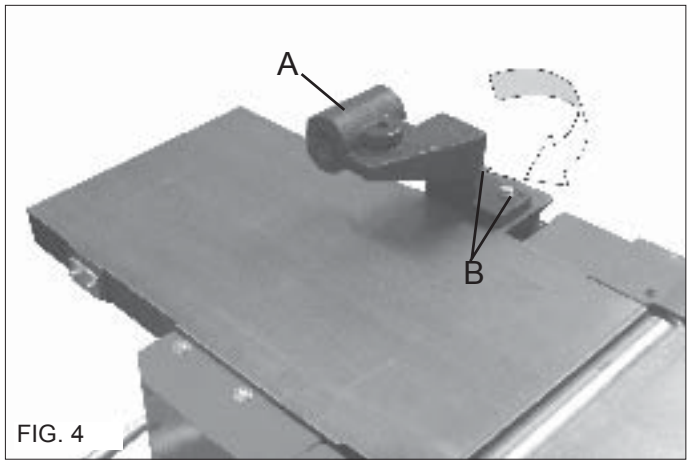


FIG. 4

- Locate the lock level (C. Fig.5) from the loose bag and install it onto the fence seat as Fig.5.

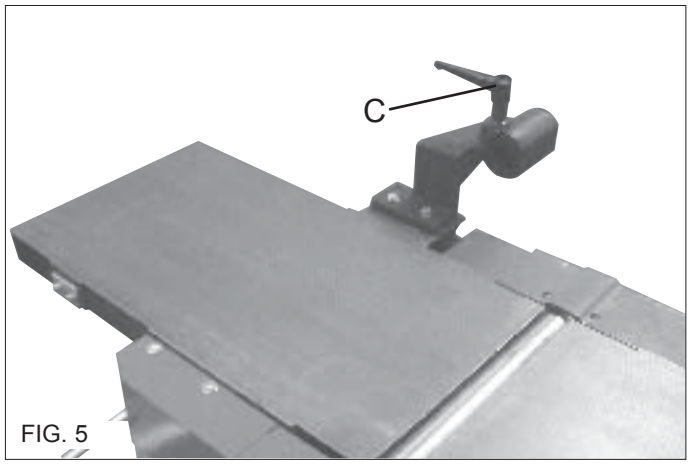


FIG. 5

- Slide the fence guide bar (D, Fig.6) into the fence seat and locking through the level (C, Fig.6)

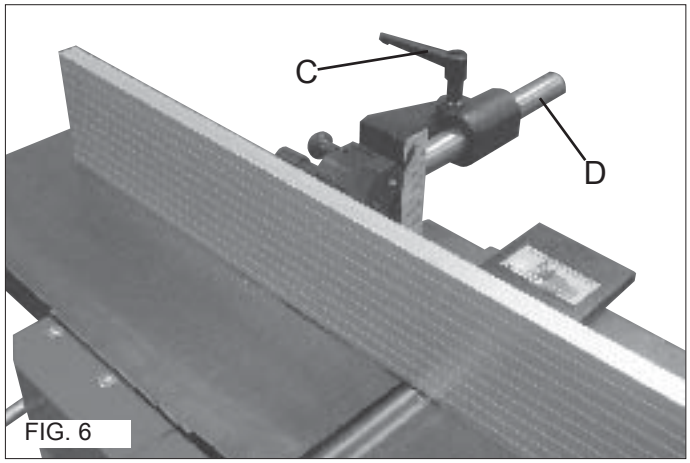


FIG. 6

3.4.2 SWITCH - INSTALLATION

- Fit the switch (G, Fig.7) onto the bracket with two hex nuts (H, Fig.7)

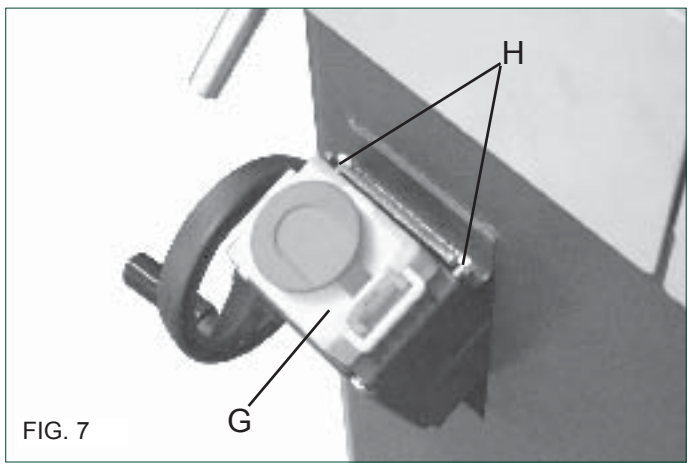


FIG. 7

3.4.3 Cutterhead guard - INSTALLATION

- Take off both of the hex socket screws (A, Fig.8). Install the cutterhead guard assembly (B, Fig.8) using two of hex socket screws. Make sure the square washer (C, Fig. 8) stay between the table and cutterhead guard.

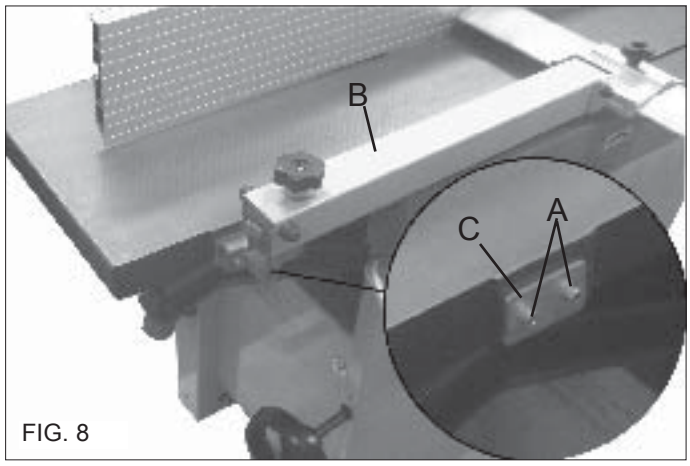
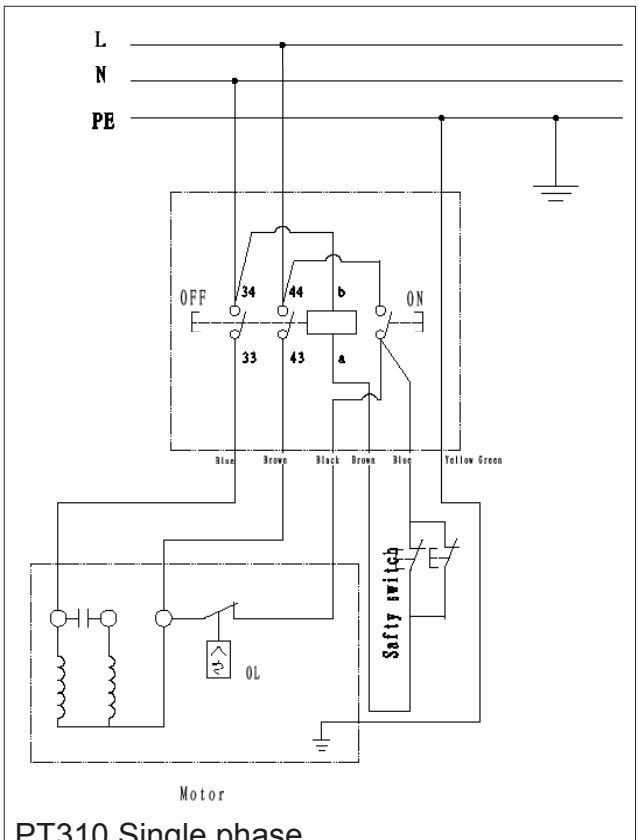


FIG. 8

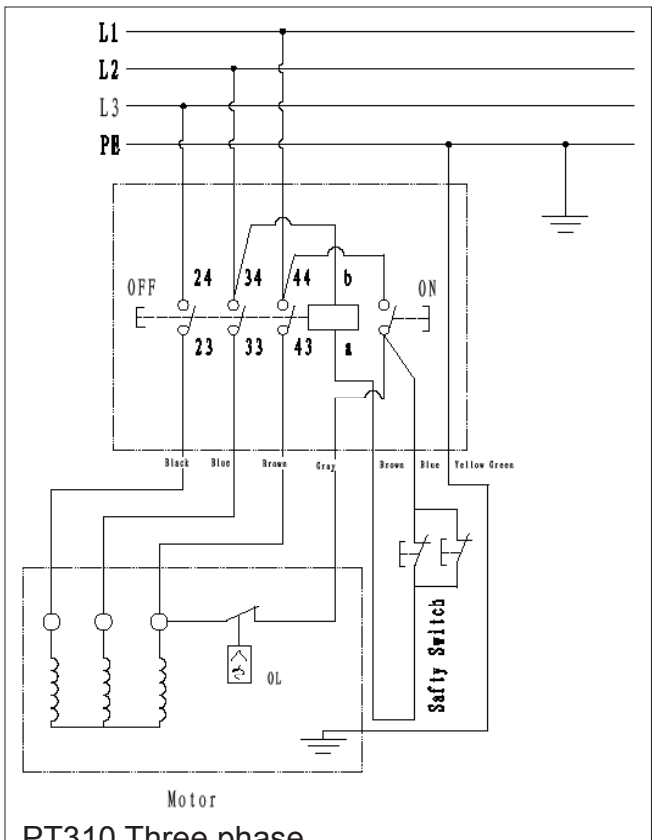
3.5 ELECTRICAL CONNECTION

Electrical installation should be carried out by competent, qualified personnel.
The connection should be made using the terminal box.
Ensure that the electrical supply corresponds with that of the machine, use cables of a section suitable for the power of the motor. For an electrical supply of 230 V or a power rating greater than 15 A it will be necessary to increase the section of the connecting cables .

Connect the phase wires to the terminals R- S - T (L1 - L2 - L3) and the earth wire to the earth terminal.
On initial start-up check the direction of rotation, if it is incorrect then invert the two phase wires (for machines with 3 phase supply).
Direction of rotation of machines with single-phase supply is pre-determined during production .
On completion of the installation check that the terminal box is closed correctly and that the plug points are locked.



PT310 Single phase



PT310 Three phase

3.6. DUST CHUTE - INSTALLATION

The dust chute complete with suction connector must be installed for planing.

CAUTION: The contact pins on the shaft of the dust chute (A, Fig. 9) must engage properly in the limit switch. Incorrectly installed dust chute the machine will not start.

Connect a suitable dust collector to the suction connector of the jointer/planer.

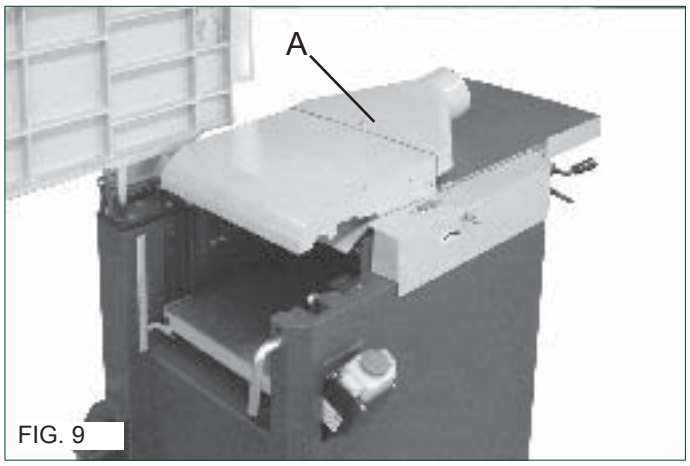


FIG. 9

4. Adjustment

4.1. PLANER TABLE HEIGHT ADJUSTMENT

Per pass a maximum of 1/8" material can be removed.

Workpieces of max. 8" thickness can be planed.

Height adjustment is made with a handwheel (B, Fig.10). One full turn of the crank changes the height of the planer bed (C, Fig.10) by 5/32".

· Clockwise turning = raises the planer bed

· Counter-clockwise turning = lowers the planer bed. The planing thickness is indicated on the scale (D, Fig.10).

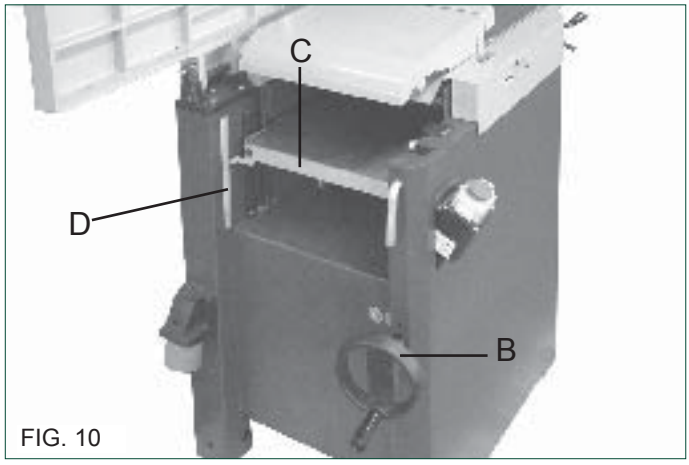


FIG. 10

4.2. INFEED TABLE HEIGHT ADJUSTMENT

The infeed table (E, Fig,11) is adjusted by using adjusting lever (G, Fig.11) for edge jointing and surface planing.

· The scale (F, Fig.11) next to the adjusting lever (G, Fig.11) corresponds to 1/32" material removal.

- After adjustment, tighten ratchet lock lever (H, Fig.11)

- Per pass a maximum of 1/8" material can be removed.

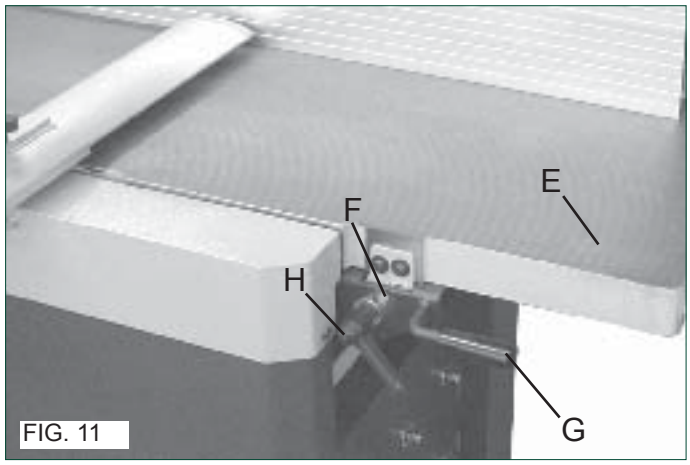


FIG. 11

4.3. JOINTER FENCE ADJUSTMENT

The jointer fence (I, Fig.12) provides lateral support for the workpiece when surface planing.

· After loosening the ratchet lock lever (J, Fig.12) the jointer fence can be adapted to the workpiece width.

· After loosening the ratchet lock lever (K, Fig.12) & lock pin (L, Fig.12) the jointer fence extrusion can be tilted to the angle between 0°- 45°.

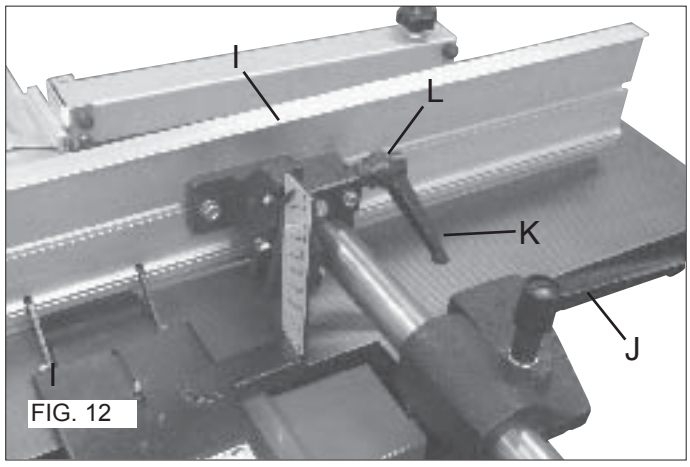


FIG. 12

5. Operating Procedures

5.1. ON/OFF SWITCH (Fig.13)

· To switch ON = press green switch button.

· To switch OFF = close cover or press red switch button.

· To unlock the switch cover push the pin on the stop cover.

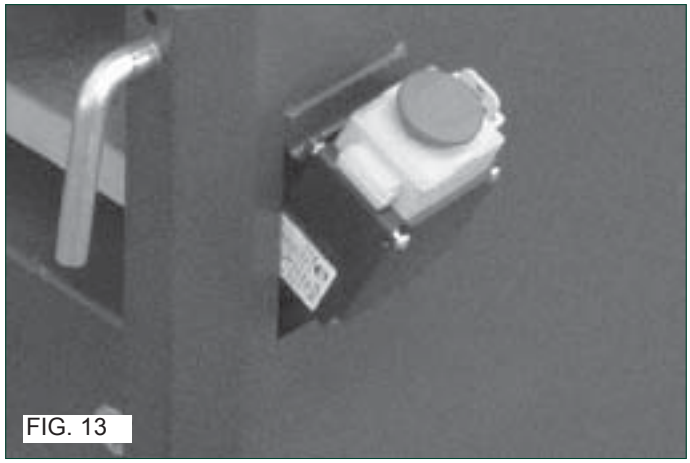


FIG. 13

5.2 SURFACE PLANER MODE:

- The workpiece rests on top of the infeed table.

- The workpiece is cut on the underside.

- The feed direction of the workpiece is exactly opposite than when thickness planing.

Workpiece dimensions

- Length: use a push stick to feed workpieces shorter than 12" ; for workpieces over 60" use support rollers.

- Width: max. 12".

- Thickness: min. 1/4".

Note: The max. depth of cut for a single pass is 1/8".

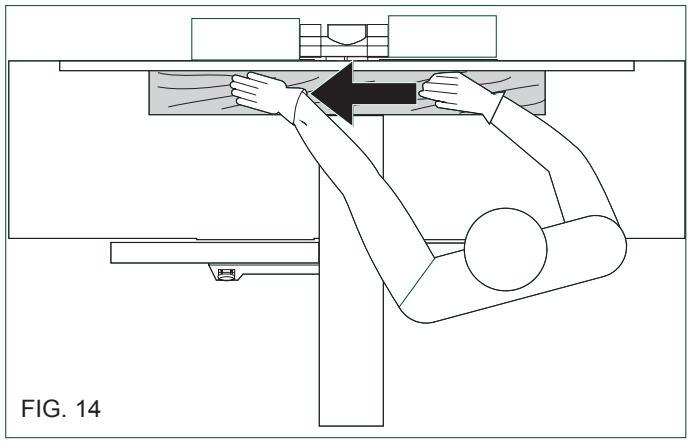


FIG. 14

1. Assume proper operating position:

position yourself to one side of the infeed table.

2. Set jointer fence as required.

3. Set planing thickness.

4. Place workpiece against jointer fence .

5. Adjust cutterhead cover:

- when planing narrow edges (jointing) or workpieces more than 3" thick:

Set cutterhead guard from the side against the workpiece (Fig16).

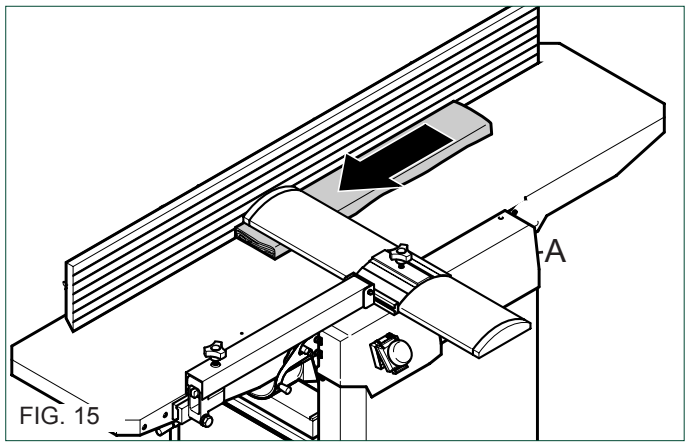


FIG. 15

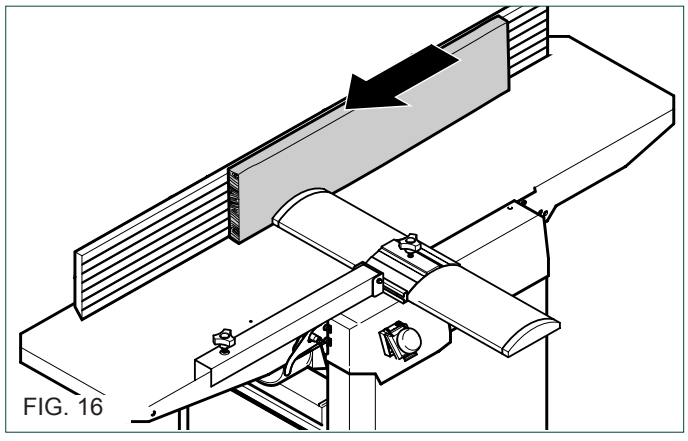


FIG. 16

- Planing the face of a plank or workpieces up to 3" thick: lower cutterblock cover from top onto workpiece. Adjust cutterhead guard so that the undermentioned distances are not exceeded in any position:

rear edge (A, Fig.17) – workpiece max. 1/64";

front edge (B, Fig.17) – workpiece max. 5/64".

6. Start motor.

Caution: The use of push blocks is necessary when face planing thin material.

7. Turn the machine on and place the workpiece on the infeed table. Feed the workpiece toward the cutterhead exerting downward pressure until the workpiece clears the cutterhead on the outfeed table side.

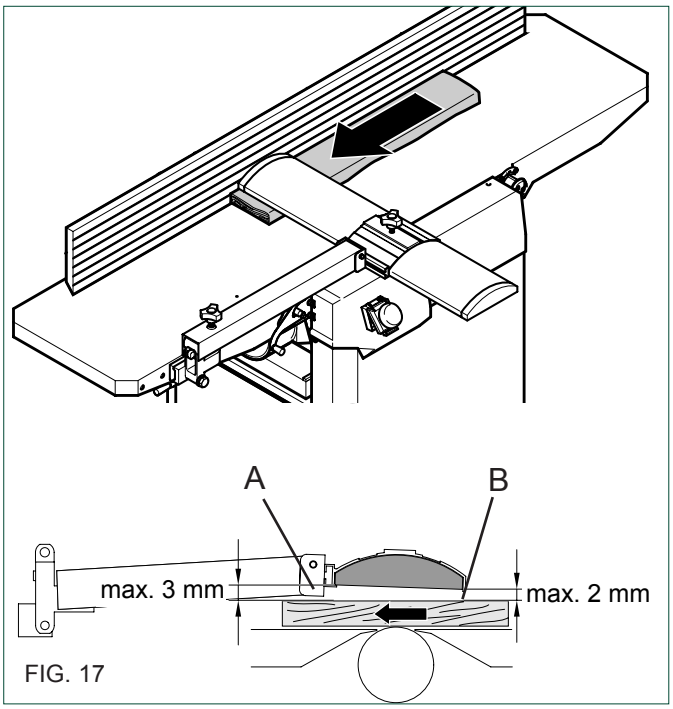


FIG. 17

Note:

Before using the jointer fence:

1. Set a try square (C, Fig.18) against the fence extrusion (D, Fig. 18)

2. Loosen both hex bolt (E, Fig.18) and adjust the set screws (F, Fig.18) until fence extrusion is square with the jointer table.

3. Tighten hex nuts when the fencn extrusion is exactly 90°

4. Set a mitre square against the fence extrusion.

5. Hex bolts (G, Fig.19) and adjust hex bolts until fence extrusion is stopped exactly 45°.

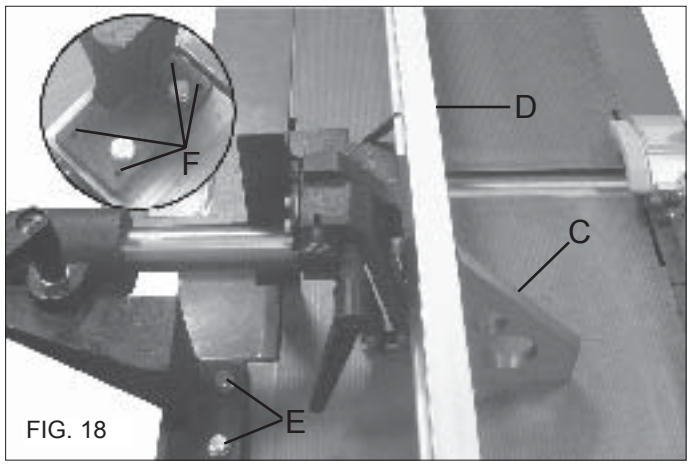


FIG. 18

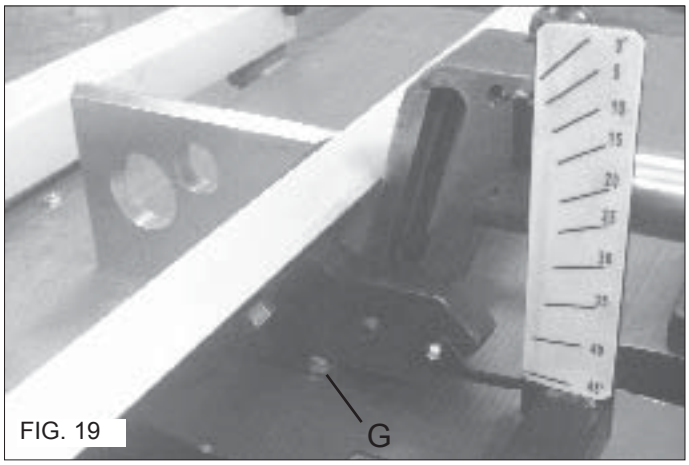


FIG. 19

5.3. THICKNESS PLANER MODE

Note: Thickness planing is used to reduce a workpiece with one already surface planed surface to a desired thickness.

- The workpiece is run through the thicknesser.

- The surface already planed flat rests on the thicknesser bed.

- The workpiece is cut on the upper side.

- The feed direction of the workpiece is exactly opposite than with surface planing.

Workpiece dimensions

- Length: min. 12"; for workpieces over 60" use roller support.

- Width: max. 12".

- Thickness: min 12"; max. 8".

Note: The max. depth of cut for a single pass is 1/8".

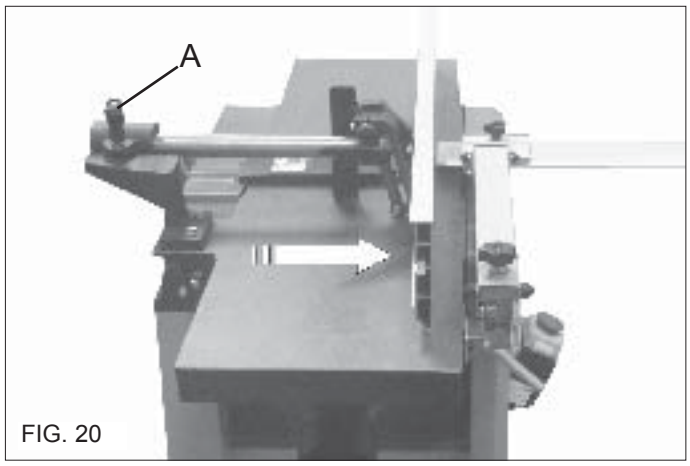


FIG. 20

1. Pull the jointer fence forward fully (Fig.20) and tighten the lock handle (A, Fig.20)
2. Turn clamping lever (B, Fig.21) outward and swing the outfeed table (C, Fig.21) together with the fence to the left. Make sure the outfeed table lock (D, Fig.21) is engaged (When close the outfeed table, please don't forget the release the lock).
3. Turn the dust chute (E, Fig.21) with installed suction connector to the machine and secure with the lock pin (F, Fig.21).
4. Assume proper operating position:
- to feed the workpiece into the machine, position yourself offset to one side of the feed opening.

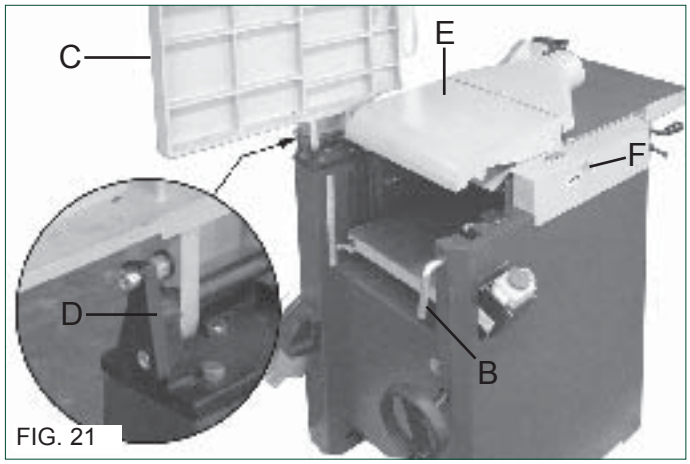
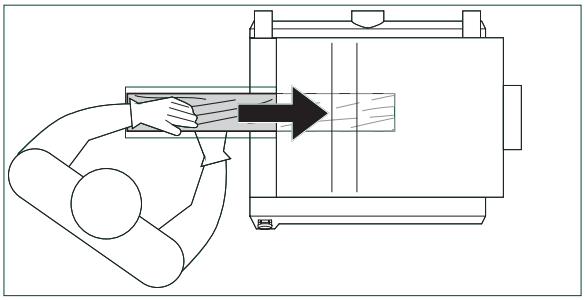
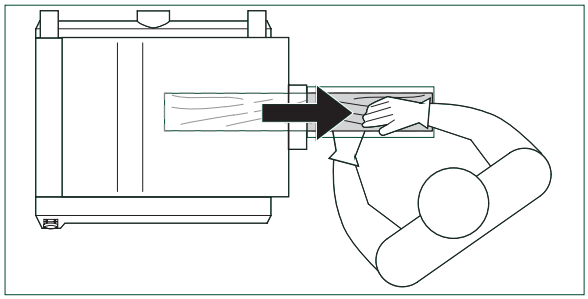


FIG. 21



- to remove the workpiece from the machine, position yourself offset to one side of the outfeed opening.



5. To thickness plane stock which surfaces are not parallel, use suitable feeding aids (make fitting templates).
6. Set planing thickness.
7. Start motor.
8. Feed workpiece slowly and straight into the planer. It will then be automatically fed through the planer.
9. Guide workpiece straight through the planer.
10. Switch machine off if no further cutting is to be done immediately afterwards.

6. Maintenance

6.1 REPLACING CUTTER KNIVES

CAUTION! Risk of personal injury by cuts from the cutter knives! Wear gloves when changing cutter knives.

To remove the cutter knives:
1. Unplug power cable.

2. Push fence back.

3. Raise cutterhead guard fully and pull extrusion fully outwards.

4. Turn the five hexagon head screws of the cutter knife lockbar fully in wear gloves! (Fig.22).

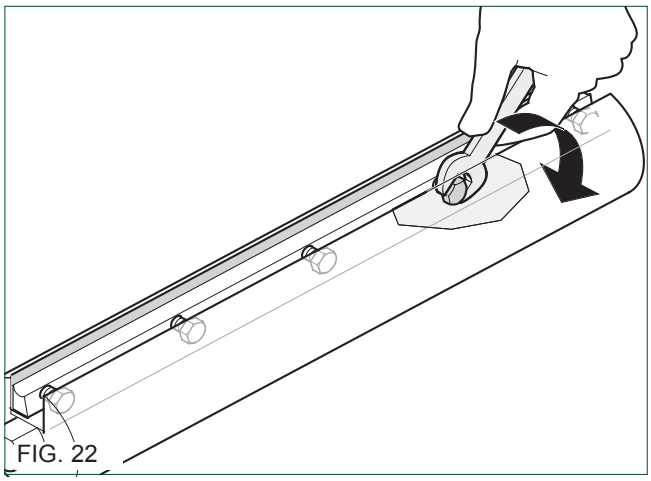


FIG. 22

5. At first remove cutter knife, then cutter knife lockbar from the cutterblock.

6. Clean all surfaces of cutterhead and cutter knife lockbar with a suitable solvent.

7. Place new cutter knife on cutter knife lockbar.

8. Place cutter knife lockbar with the fitted cutter knife into the cutterhead.

9. Check the projection of the knives:
- With the provided straight edge gauge .
- Place straight edge gauge across outfeed table and cutterhead as shown.
- Turn cutterhead by hand one turn against the direction of feed.
- The cutter knives are set correctly if the straight edge is moved forward 1/64" to 1/4" by the turning cutterhead. This check must be performed the full length of the cutterhead. (Fig.23)

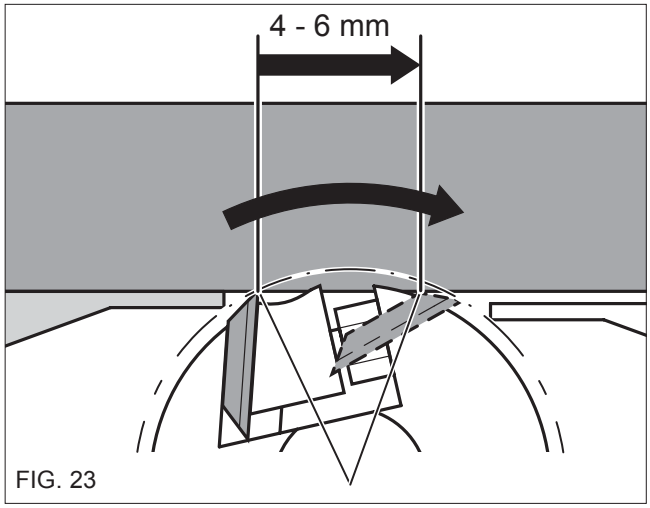


FIG. 23

10. To tighten the cutter knives, turn the five hexagon head screws of the cutter knife lockbar fully out. To prevent distortion of the cutter knife lockbar start with the screws in the centre , then tighten the screws closer to the edges step by step.(Fig.24)

Danger!
- Do not extend tool when tightening the screws.
- Do not tighten bolts by striking the wrench.

11. Return cutterhead guard to its starting position.

12. Pull fence forward.

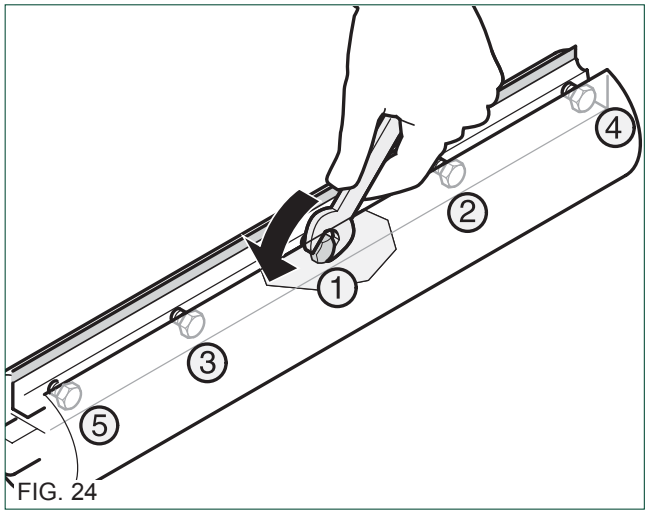


FIG. 24

6.2 Drive Belt Check

The cutterhead drive belt and the feedgear drive belt need to be checked periodically and retightened if necessary. Both drive belts are located behind the machine's side panel.

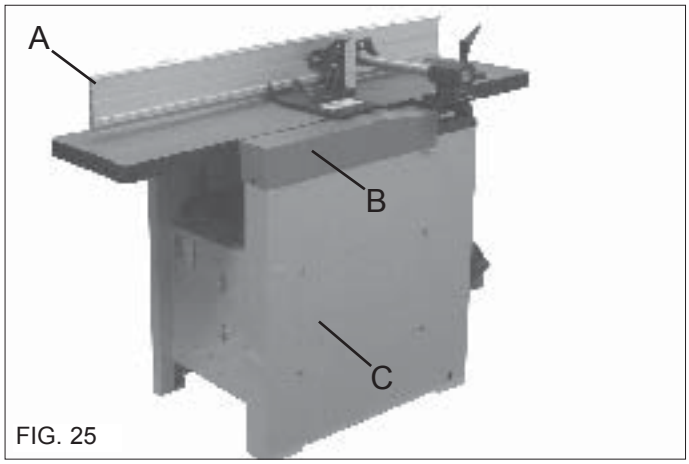


FIG. 25

Checking the drive belt:

1. Unplug power cable.

2. Pull the fence (A, Fig.25) forward.

3. Take off the the side panel (B, Fig.25) and belt cover (C, Fig.25).

4. Check belt tension with thumb pressure. The drive belt should not give more than 3/8" in the center.

Tensioning the drive belt:

5. From outside the machine, loosen the four nuts (D, Fig.26) – using board (E, Fig.26) to increase the motor, the cutterhead drive belt will be slackened.

CAUTION: When raising the motor with a board, don't damaged the motor wiring box.

6. To tension the cutterhead drive belt, push the motor downward. When belt tension is correct tighten motor mounting nuts (D, Fig.26).

7. If necessary, remove chips and dust with dust collector or brush.

8. Replace the side panel and belt cover secure with the screws.

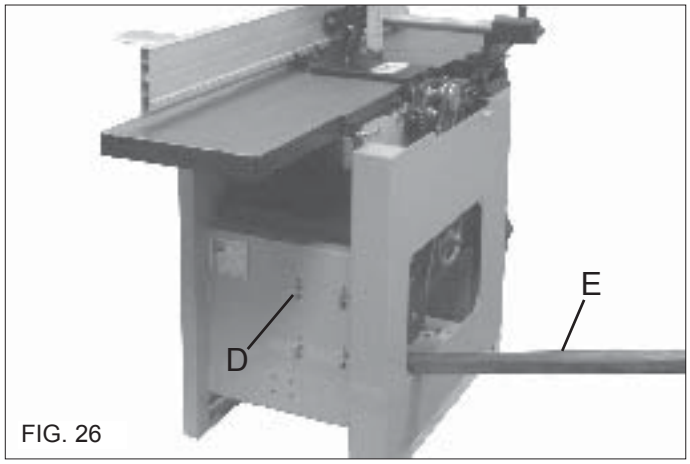
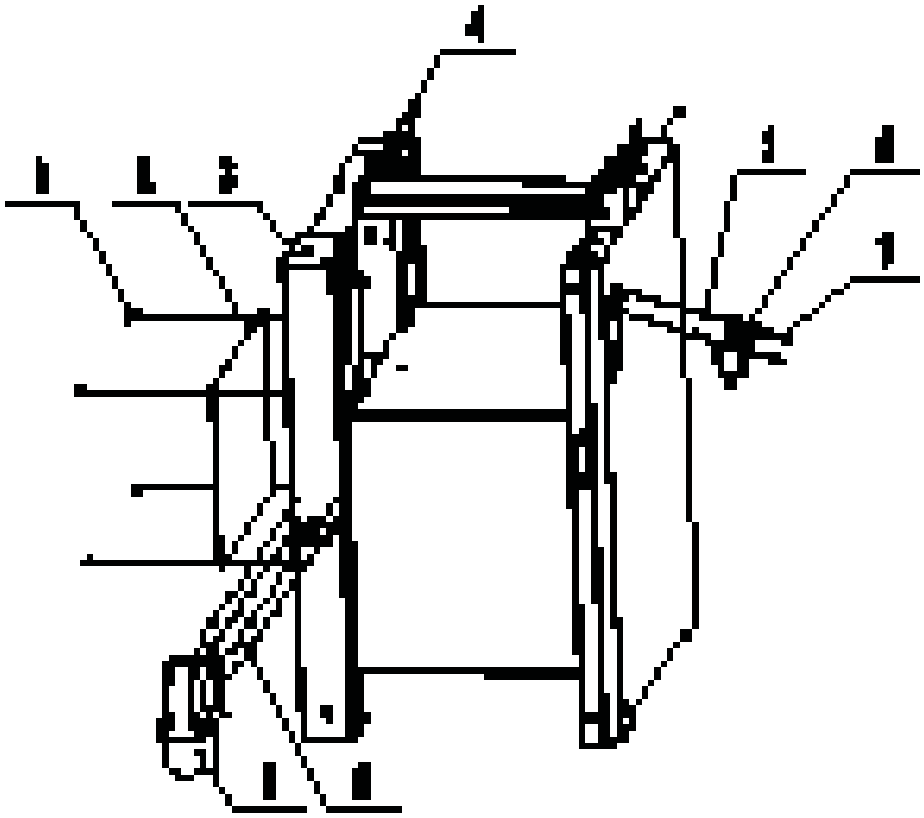
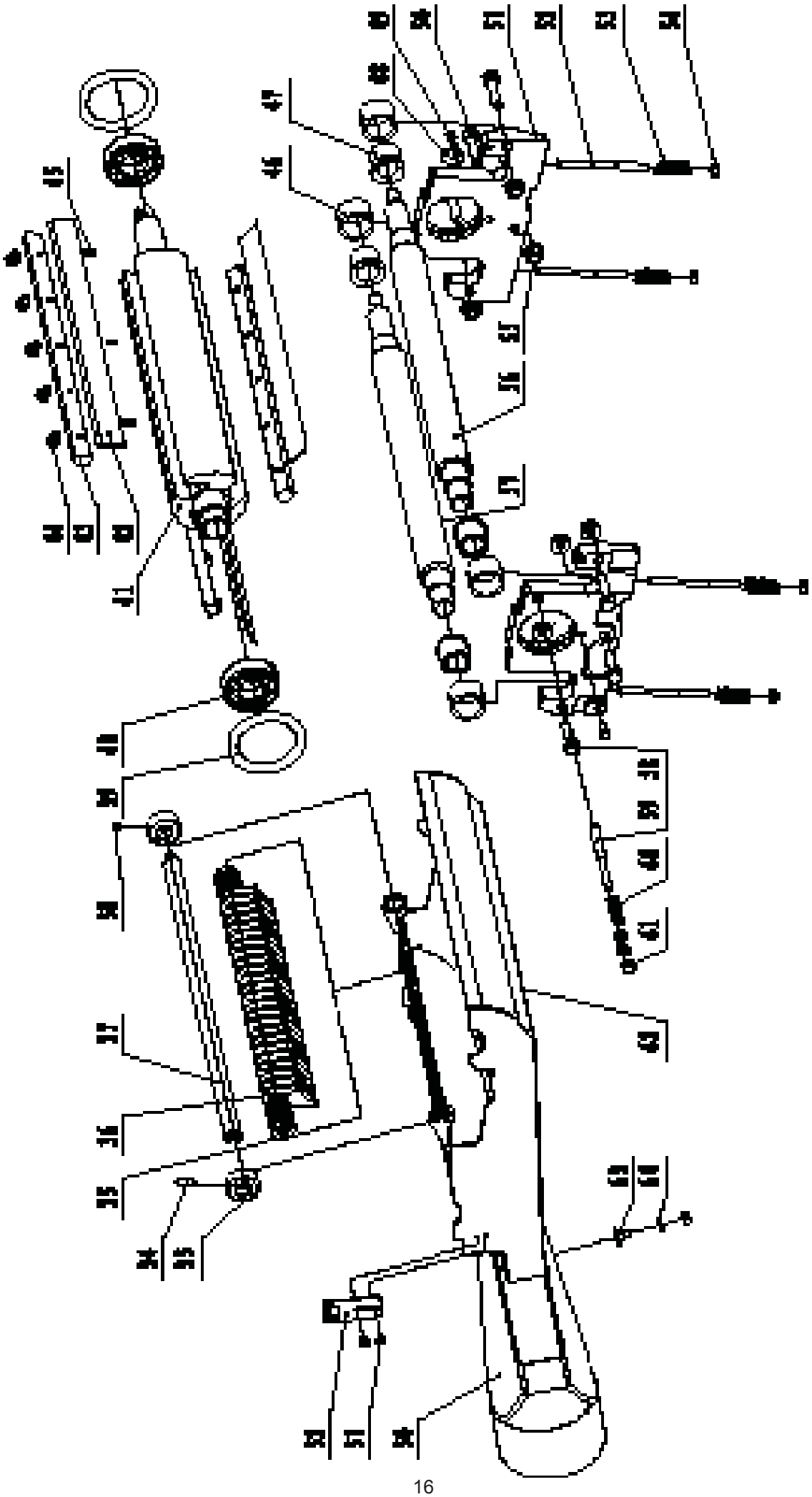


FIG. 26

7. Diagrams & Components

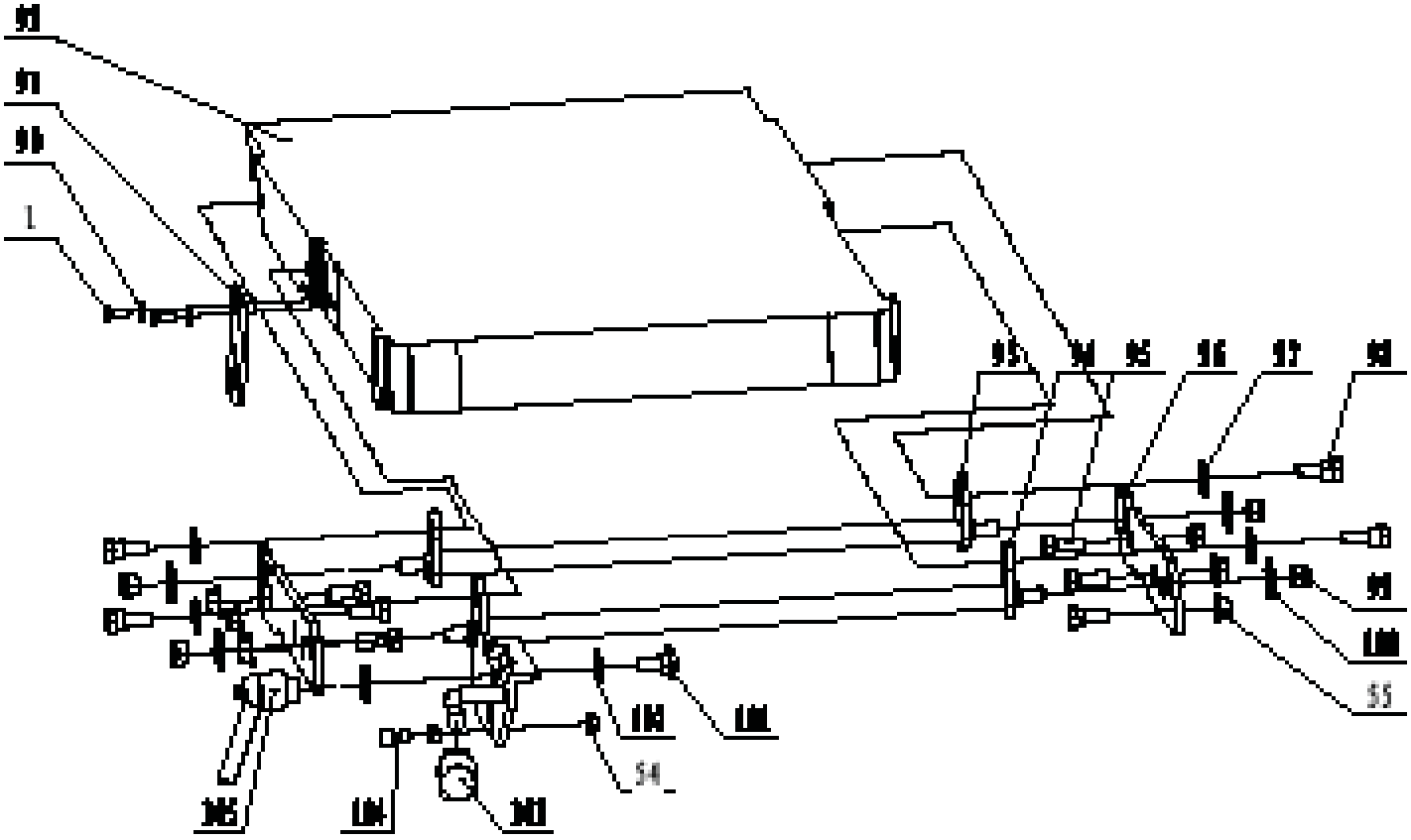


Ref No.	Description	Ref No.	Description
1	Screw M6X12	6	
2	Cover plate	7	Pan head screw M4X60
3	Cabinet	8	Pan head screw M4X8
4	Rivet nut M6X15	9	Plug
5	Hex. Nut M4		



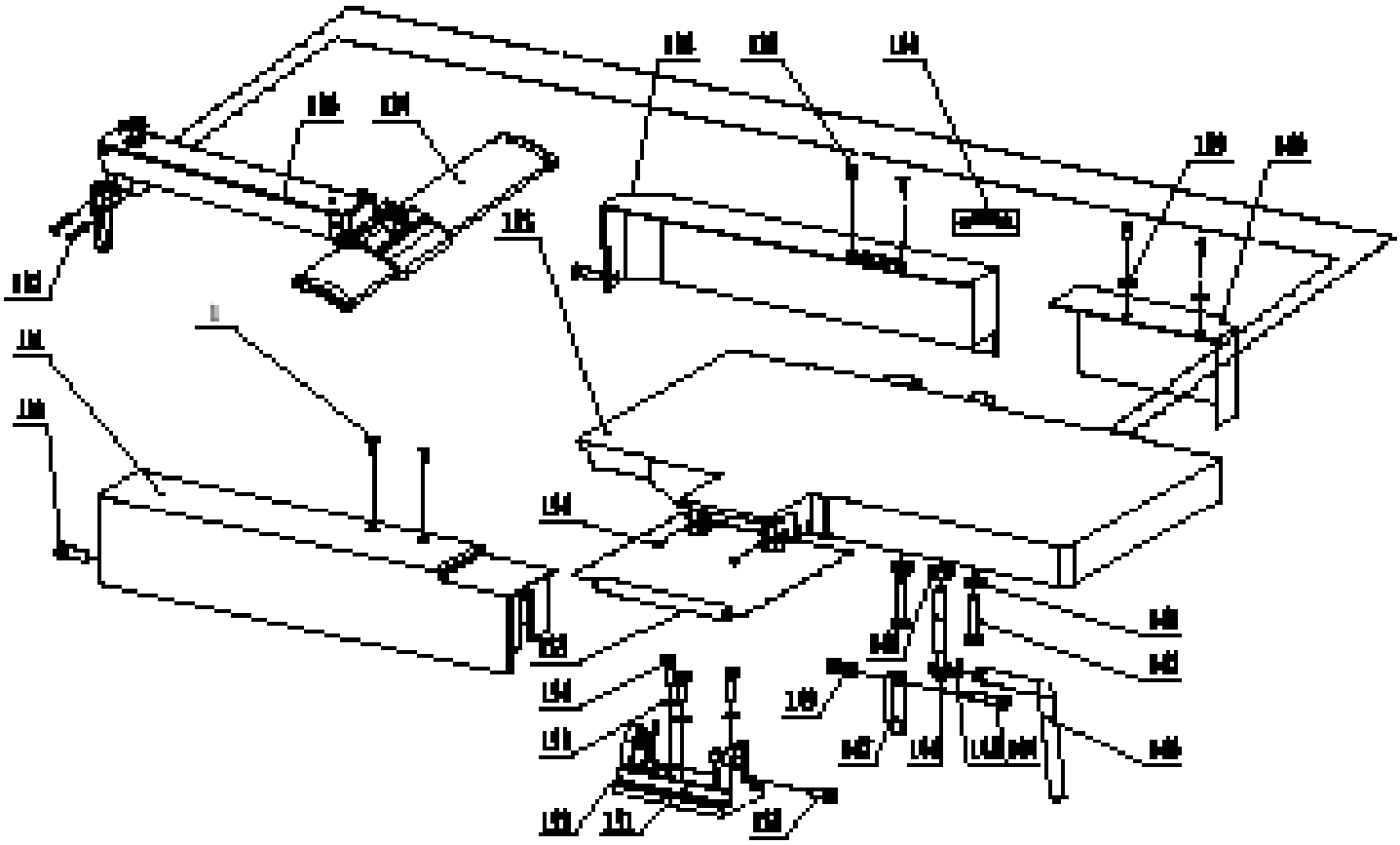
Ref No.	Description
30	Extended dust port
31	Rivet
32	Bracket
33	Tube
34	Hex. Socket set screw
35	Adjusting washer
36	Anti-kickback finger
37	Shaft
38	Hex. Socket set screw
39	Rubber washer
40	Bearing
41	Cutter block
42	Knife
43	Knife locking bar
44	Special screw for locking bar
45	Spring
46	Mounting tube
47	Tube

Ref No.	Description
48	Bearing bracket
49	Hex. Bolt M6X12
50	Hex. Bolt M8X30
51	Cutterblock bracket
52	Tighting rod
53	Spring
54	Hex. Nut M6
55	Flange nut
56	Outfeed roller
57	Infeed roller
58	Hex. Bolt M8X35
59	Roll pin
60	Spring
61	Cap nut
62	Dust collector
63	Carriage bolt
64	Flat washer



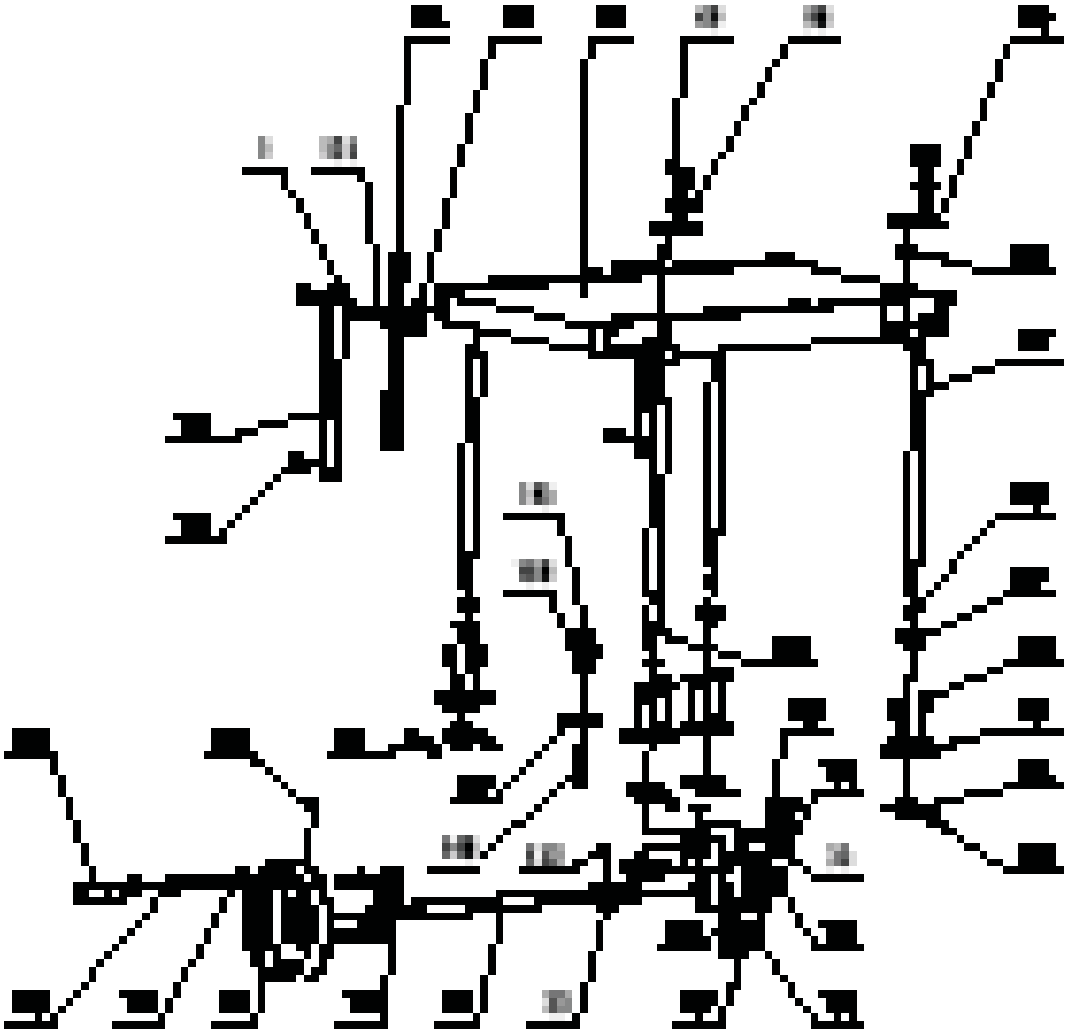
Ref No.	Description
90	Flat washer
91	Scale plate
92	Infeed table
93	Front shaft
94	Handle shaft
95	Hex. Bolt
96	Lift bracket
97	Spring washer

Ref No.	Description
97	Spring washer
98	Carriage bolt
99	Lock nut M8
100	Flat washer
101	Carriage bolt
102	Flat washer
103	Knob
104	Hex. Socket head screw
105	Locking handle



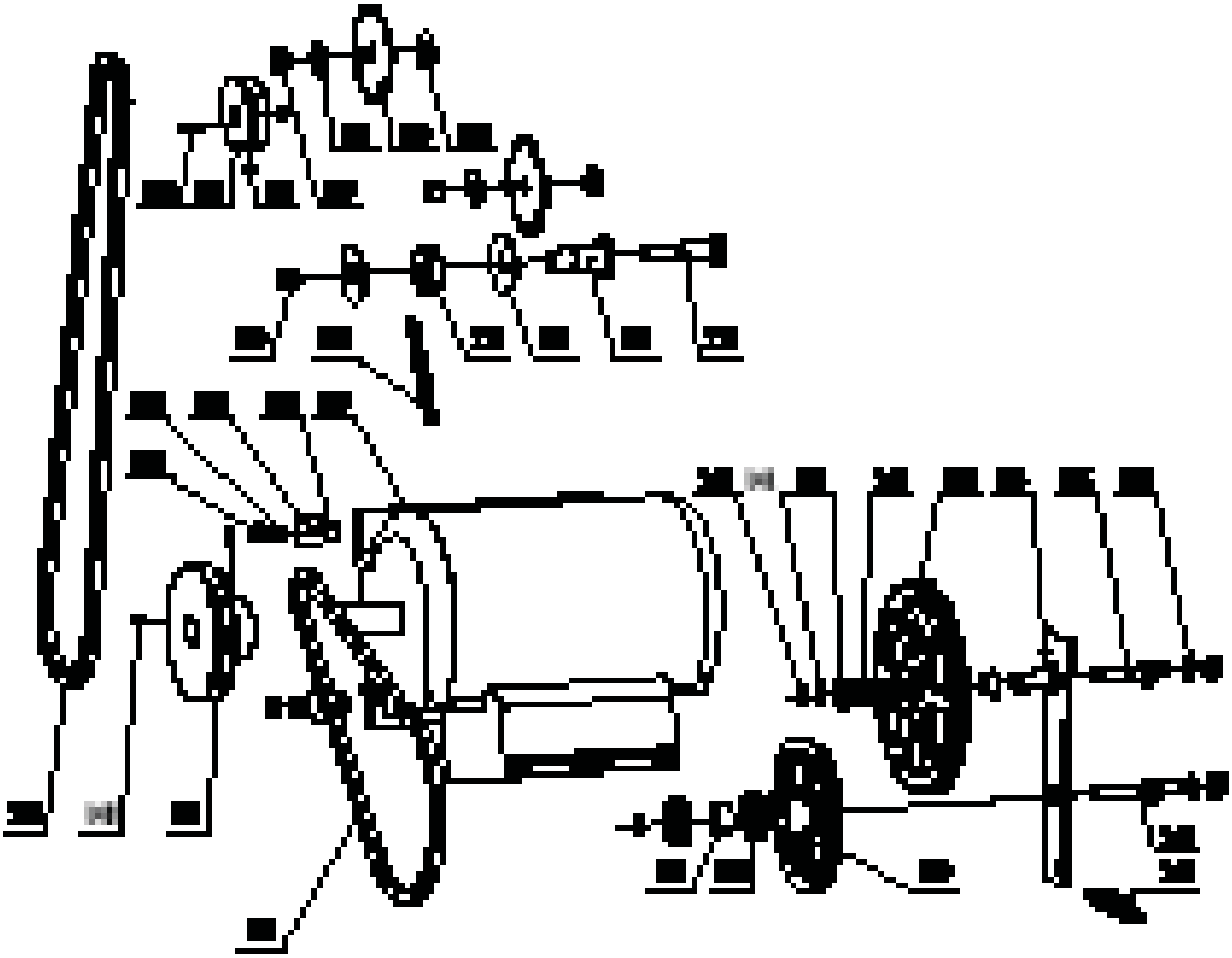
Ref No.	Description
130	Screw M6X16
131	Right cover
132	Screw M6x40
133	Cutterblock guard assembly
134	Cutterblock guard w/cap
135	Infeed table
136	Left cover
137	Screw M6X12
138	Rotation label
139	Flat washer
140	Left bracket
141	Hex. Nut
142	Special bolt
143	Rear handle

Ref No.	Description
144	Hex. Socket head screw
145	Retaining ring
146	Lock thead bar
147	Bracket
148	Hex. Nut M12
149	Hex. Nut M8
150	Hex. Socket head screw
151	Mounting base
152	Hex. Socket set screw
153	Flat washer
154	Hex. Bolt M8X25
155	Shaft
156	Set screw M6X8



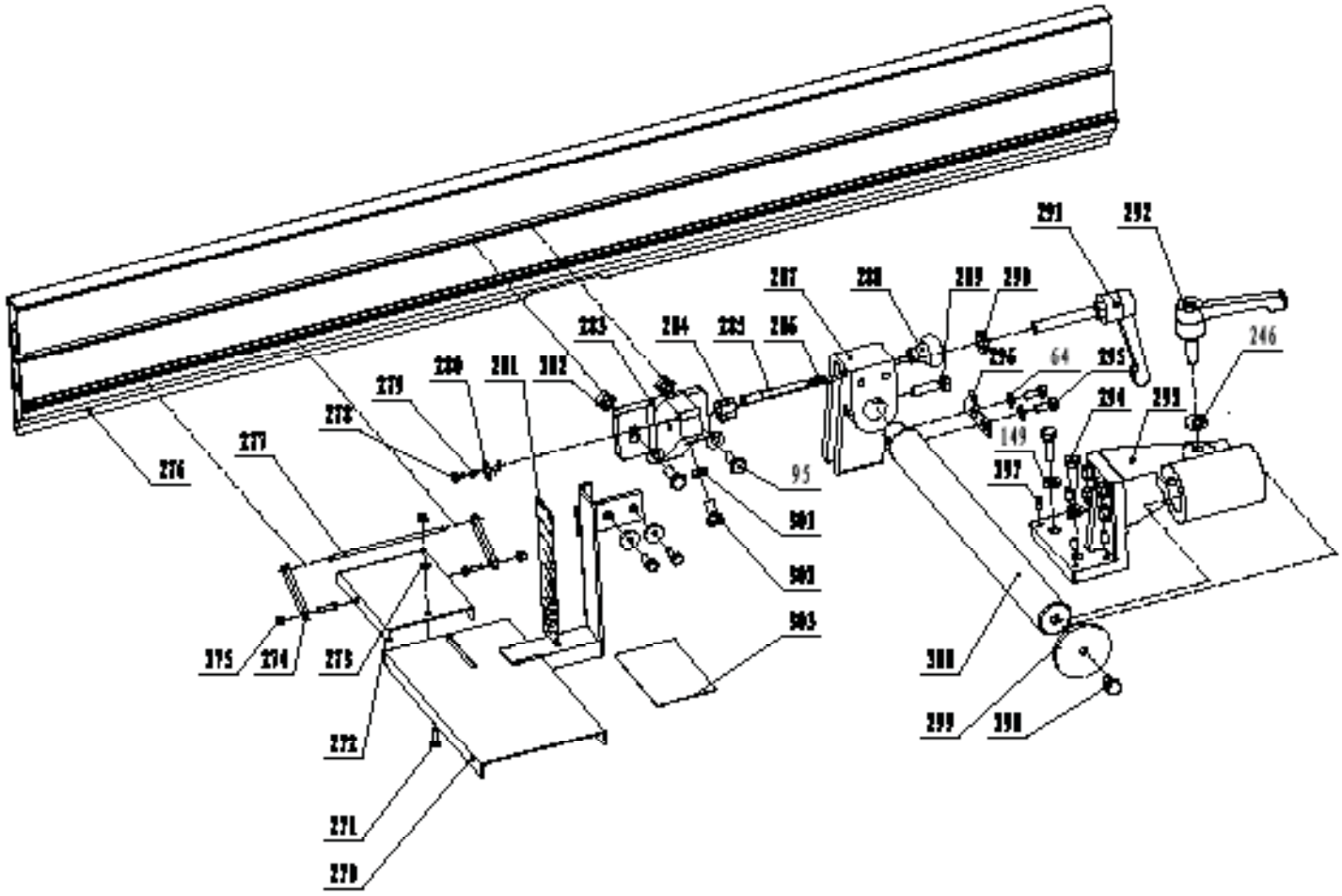
Ref No.	Description
170	Hex. Socket head screw
171	Guide shaft
172	Scale
173	Indicator
174	Thickness table
175	Mounting plate
176	Mounting tube
177	Threaded bar
178	Spacer block
179	Shaft tube
180	Hex. Socket set screw
181	Position plate
182	Lift chain wheel
183	Roll pin
184	Threaded bar
185	Screw M8X16

Ref No.	Description
186	Bevel gear
187	Retaining ring
188	Shaft tube
189	Roll pin
190	Gear
191	Crank bar
192	Crank bar tube
193	Big handwheel
194	Hex. Nut
195	Handle bolt
196	Crank handle
197	Hex. Socket set screw
198	Drive chain
199	Chain wheel



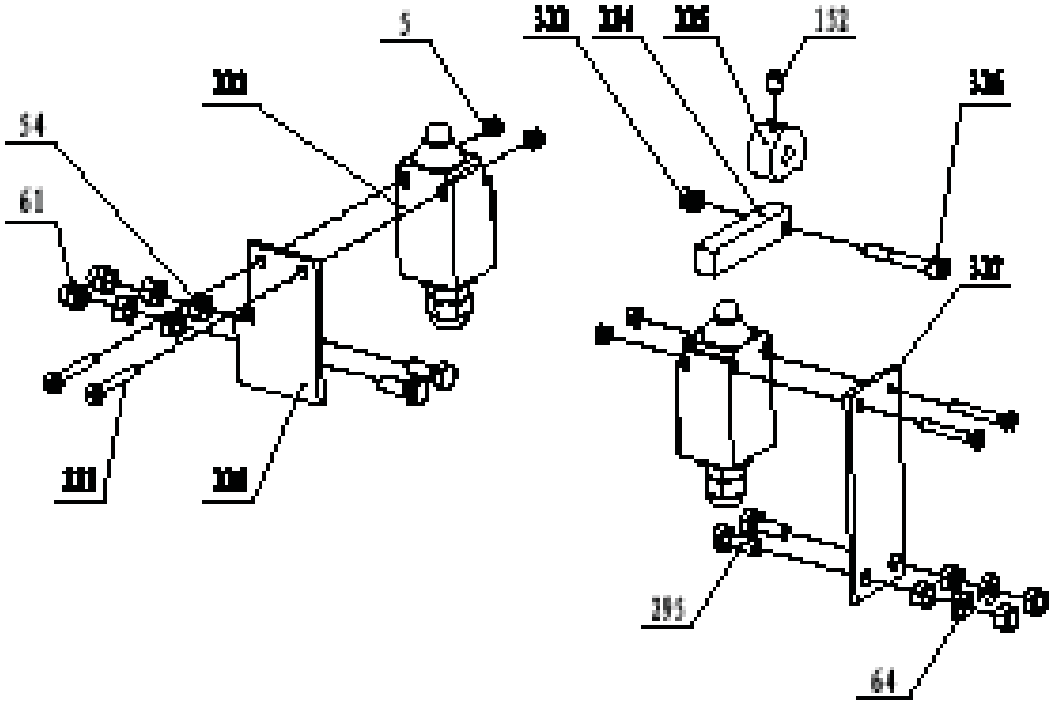
Ref No.	Description
220	V belt
221	Motor pulley
222	V belt A1194
223	Cap nut M8
224	Lock washer 8
225	Flat washer 8
226	Flange bolt M8X25
227	Motor
228	Chain
229	Lock nut M12
230	Bearing
231	Flat washer
232	Tube
233	Bolt M12X70
234	Key 6x16
235	Spindle pulley
236	Hex. Socket set screw

Ref No.	Description
237	Lock nut M10
238	Flat washer
239	Big chain wheel
240	Washer
241	Retaining ring
242	Tube for chain wheel
243	Cam wheel
244	Cam wheel bracket
245	Cam wheel shaft
246	Flat washer
247	Shaft
248	Spring
249	V-blet pulley
250	Bearing
251	Bearing spacer



Ref No.	Description
270	Cutterhead cover
271	Pan head screw M4x16
272	Sliding cover
273	Flat washer 4
274	Sliding cover bracket
275	Nylon nut M4
276	Jointer fence
277	Pin shaft
278	Pan head screw M4x8
279	Spring washer 4
280	Indicator
281	Scale
282	Square nut
283	Jointer fence bracket
284	Slider
285	Pin shaft
286	Spring

Ref No.	Description
287	Rotation bracket
288	Pin stop knob
289	Hex bolt M6x30
290	Special washer
291	Tilt locking handle
292	Sliding locking handle
293	Sliding bracket
294	Hex bolt M8x25
295	Hex bolt M6x15
296	Stop bracket
297	Set screw M6x12
298	Hex bolt M8x12
299	Washer
300	Guide rail
301	Hex nut
302	Hex bolt M8x16
303	Warning label



Ref No.	Description
330	Safety switch bracket II
331	Screw M4X30
332	Safety switch
333	Lock nut M5

Ref No.	Description
334	Bracket
335	Small cam wheel
336	Hex. Socket set screw M5X35
337	Safety switch bracket I

8. Notes

RIKON
POWER TOOLS

2-Year Limited Warranty

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The card must be entirely completed in order for it to be valid. If you have any questions please contact us at 877-884-5167 or warranty@rikontools.com.

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Woburn, MA 01801

877-884-5167/781-933-8400
techsupport@rikontools.com
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